improperly shown resellers of AT&T services as competitors of AT&T for commercial long distance traffic, rather than allocating these revenues to AT&T.[36] CompTel's criticism has no merit. First, resellers undeniably compete in the marketplace with AT&T for the business of commercial long distance customers, just as facilities-based carriers do. Second, to the extent that they use AT&T's network to deliver services to these customers, resellers use AT&T business services which the Commission held in Docket No. 90-132 were subject to effective competition. As a result, AT&T gains no indirect market power over the customers of resellers. If AT&T raised its prices to resellers, they would simply use the services offered by other carriers.

Indeed, the Commission's own analyses follow AT&T's methodology in computing market shares in the long distance market. The Commission computes long distance shares by revenues, by switched access purchases, and by presubscription.[37] In all of these measures, resellers are not included in the shares of the carriers whose services are resold. CompTel's criticism is nothing more than a red herring designed to distract the Commission from the

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[36] Notice, ¶¶ 7, 10.

[37] See Long Distance Market Shares: First Quarter 1993, released June 29, 1993.

significant changes in AT&T's share for commercial long distance customers.

The Notice also inquires why AT&T excluded OCPs from its market share analysis even though some OCPs are expressly designed for small business customers.[38] AT&T excluded small business OCPs from its market share analysis because, unlike commercial long distance service, those OCPs are already subject to streamlined regulation.[39]

If a combined commercial long distance and small business OCP market share nevertheless were examined, the examination would show that AT&T's share of the combined market has fallen even faster than its share of commercial long distance. AT&T's waiver petition demonstrated that AT&T's market share for the Commercial Long Distance customer group had fallen by 15 percentage points over the most recent four-year period, resulting in an AT&T commercial long distance share of only 39 percent.[40] During the same period, AT&T's combined share for the commercial

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[38] Notice, ¶ 10.

[39] See IXC Rulemaking Order.

[40] AT&T Waiver Petition, p. 15.

long distance and small business OCPs customer group fell by approximately 24 percentage points.[41]

The Commission also asks AT&T to comment on the rate impacts of streamlining the commercial long distance service classification.[42] In this regard, the Commission notes MCI's claim that AT&T is seeking streamlining in order to impose a monthly minimum usage charge on commercial long distance customers.[43]

The short answer to MCI is that the market will determine the rates which AT&T charges for commercial long distance service after that service is streamlined. AT&T cannot predict at this time what changes will be made as a result of market forces or how those changes will compare to the changes in residential rates. With respect to the possibility of a minimum monthly charge for commercial long

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41 This computation is based on AT&T's commercial long distance service as well as the PRO WATS and CustomNet services. To the extent that market share may be relevant to this analysis, the Commission has previously recognized that an analysis based on market share "at a given point in time" is "too static and one dimensional," and that the decline in AT&T's market share over time is far more probative. Competition in the Interstate Interexchange Marketplace, 5 FCC Rcd. 2627, 2633 (1990); see also IXC Rulemaking Order, 6 FCC Rcd. at 5890 n.91.

42 Notice, ¶ 12.

43 Id., ¶ 8.

distance, this claim is also a red herring. AT&T's ability to impose a minimum charge is unrelated to the proposal to streamline commercial long distance. Such a charge could be implemented (or not) regardless of whether streamlining occurs. Moreover, the Commission retains its power to determine whether a minimum charge is a reasonable practice without regard to its streamlining determination.

In short, in light of the uncontradicted showing of effective competition for commercial long distance customers, the Commission should without delay streamline its regulation of AT&T commercial long distance service. Continued price cap regulation of this service is not only unnecessary but harmful. The Commission has repeatedly found that direct economic regulation of services for which carriers lack market power interferes with the operation of competitive forces and "imposes both direct and indirect costs on users."[44] In addition, such regulation wastes Commission resources that should instead be utilized in areas where regulation may be more appropriate.

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[44] Competition in the Interstate Interexchange Marketplace, 6 FCC Rcd. 5880, 5895 (1991).

III. The Commission Should Eliminate The Productivity Offset For Basket 2 and 3 Services

The Notice invites proposals to modify the price cap regulation of the few remaining services in Baskets 2 and 3.[45] Basket 2 now contains only 800 Directory Assistance, and Basket 3 contains analog private line services which are being replaced by digital services. The Notice recognizes that application of the usual price cap index calculations to these services may present "different issues," noting that the price cap productivity factor "may not necessarily be appropriate for a single small service such as 800 DA." Id. The Notice also seeks comments on use of a single basket for services now divided between Baskets 2 and 3. Id.

The Commission properly questions the propriety of applying the historically-based interstate productivity factor to the few services remaining in Baskets 2 and 3. Id. As is true for the services that will remain in Basket 1, the price cap productivity factor based on historic, total interstate productivity improvements has no logical relationship to the productivity improvements that can be expected for the Basket 2 and Basket 3 services.

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[45] Notice, ¶ 18.

Having significantly modified the composition of Baskets 2 and 3 since it first created the price cap structure in 1989, the Commission should show in this review that its price cap rules -- including the productivity offsets -- have not become arbitrary as a result of the basket modifications. The historic productivity factor was an average of all interstate services, digital and analog, short haul and long haul, business and residential, switched and private line. There is no reason to assume that this average rate of productivity improvement, computed on the basis of a broad array of different services that use different technologies, would by coincidence also be the actual rate of productivity improvement for the two specific services in Baskets 2 and 3.

Basket 3 is composed of analog private line services which use outmoded inefficient technology. Technological developments in the delivery of private line services which may improve productivity are occurring in the realm of digital services, not analog private line services. There is no basis for applying any productivity improvement factor whatsoever to the analog private line services in Basket 3.

Similarly, the current productivity factor has no relationship to the productivity or costs associated with the provision of 800 directory assistance service. Unlike the communications services on which the productivity factor was based, this service does not even provide basic communications transport between end users. It provides information. There is no reasonable basis to assume that 800 DA service experiences the same rate of productivity improvement as do all interstate services on average. As with Basket 3, the Commission should eliminate the productivity offset for Basket 2.

The Commission's further suggestion that AT&T combine Baskets 2 and 3 into a single Basket with two service bands would provide no material benefit. The burden of administering the rate bands in a single basket would be no less than the burdens of administering two baskets today.

IV. The Commission Should Allow AT&T To Implement Improvements In Its Service Quality and Network Reliability Monitoring System

The Notice raises two issues concerning AT&T's EB&F reports, which measure call blockages and failures for AT&T services. These semi-annual reports measure AT&T's performance on an index which compares current results to the period immediately preceding the implementation of price cap regulation.

The first issue raised by the Notice concerns corrections which AT&T made in late 1992 to the 1989 base period which is the reference point for all subsequent index periods. This base period is defined as the six months immediately before the July 1989 implementation of price caps. AT&T recently learned, however, that the base period data for the first three months of 1989 were incorrect and that correct data could not be reconstructed. As a result, AT&T corrected the base period data so that the base period is based on the correct April, May and June 1989 data and an average of these data for January, February and March.

In the Notice, the Commission ordered AT&T to commission an independent audit of all data relating to the EB&F index reports, including an audit of the adjustments to the base period.[46] AT&T commissioned Coopers & Lybrand ("C&L") to perform the audit. The C&L report, which is attached as Appendix A, found the data, as corrected, "in conformity" with the criteria which the EB&F reports are supposed to reflect.[47]

The second issue raised in the Notice concerns a minor change which AT&T desires to make in the EB&F report.

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[46] Notice, ¶¶ 17, 22.

[47] In addition to the corrections to the base period in AT&T's January 23, 1993 submission to the Commission, C&L notes that in that submission AT&T also appropriately corrected another minor database problem in which certain 1992 calls that had been originally identified as blocked were corrected to indicate that the calls were in fact completed.

Before the Commission required the public submission of EB&F rates, the EB&F system reports were created by AT&T as a quality and reliability monitoring system used for internal management purposes. Historically, "domestic" calling measurements within AT&T included calls to Canada and the Caribbean. Recently, in order to evaluate domestic call characteristics more accurately, AT&T has excluded calls to Canada and the Caribbean from "domestic" call categories. To align the EB&F measurement system with actual domestic calling categories in use within AT&T, AT&T now plans to adjust the domestic EB&F monitoring system to exclude the calls to Canada and the Caribbean (other than calls to Puerto Rico or the U.S. Virgin Islands).

In addition, AT&T proposes to refine its methodology so that the weighting of the sample calls is taken directly from the same trunks on which the EB&F system measures the number of blocked and failed calls, rather than from the total mix of calls for each AT&T switch.[48]

In short, AT&T's proposed changes will not impede the Commission's ability to identify trends in AT&T's

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48 At the Commission's direction, AT&T also commissioned C&L to evaluate the change proposed by AT&T. C&L's report is attached as Appendix B. That report found that the revised EB&F monitoring methodology was supported by "standard statistical literature."

In short, AT&T's proposed changes will not impede the Commission's ability to identify trends in AT&T's network quality and reliability levels. Conversely, failure to allow the change would require AT&T to operate two separate overlapping EB&F measurement systems, resulting in significantly increased costs with no material benefit.

CONCLUSION

WHEREFORE, for all the reasons set forth above, AT&T respectfully requests the Commission to implement the rule changes proposed above, including streamlined regulation for OCPs and commercial long distance services and the elimination of the productivity offset for the remaining price cap baskets.

Respectfully submitted,

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

By F. J. Berry/JJL
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September 21, 1993

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

Schedule of Equipment Blockage and Failure Reports
for the Period January 1, 1989 through June 30, 1993

EXHIBIT A

Coopers &Lybrand

certified public accountants

Report of Independent Certified Public Accountants

To American Telephone and Telegraph Company:

We have examined the accompanying Schedule of Equipment Blockage and Failure Reports for the period January 1, 1989 through June 30, 1993. Our examination was made in accordance with standards established by the American Institute of Certified Public Accountants and, accordingly, included such procedures as we considered necessary in the circumstances.

In our opinion, the Schedule of Equipment Blockage and Failure Reports referred to above presents the equipment blockage and failure data for the period January 1, 1989 through June 30, 1993 in conformity with the stated criteria set forth in Note 1.

This report is intended solely for the information and use of the board of directors and management of American Telephone and Telegraph Company and the Federal Communications Commission and should not be used for any other purpose.

Coopers & Lybrand

September 14, 1993
New York, New York

AT&T
Schedule of Equipment Blockage and Failure Reports
For the Period January 1, 1989 through June 30, 1993

	All Factors		AT&T Network Only	
	Equal Access Index	Non-equal Access Index	Equal Access Index	Non-equal Access Index
Six-Month Period Ending				
June 30, 1989	100	100	100	100
December 31, 1989	134	128	136	129
June 30, 1990	100	102	107	105
December 31, 1990	99	97	114	107
June 30, 1991	83	85	102	101
December 31, 1991	80	83	96	96
June 30, 1992	77	79	95	95
December 31, 1992	77	80	95	95
June 30, 1993	88	90	91	91

See Notes to Attest Report.

AT&T
NOTES TO ATTEST REPORT

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1. **Attest Report Criteria**

BACKGROUND

AT&T has utilized a Service Evaluation System (the "System") to monitor and measure network quality. The System provides call disposition data on calls originating from the majority of switches within its network. The calls are weighted and classified by disposition category to provide quantitative measurement of completion, non-completion and equipment blockage and failure ("EB&F"). In 1989, the Federal Communications Commission ("FCC"), in conjunction with Price Cap Regulations, issued an order requiring AT&T to provide network service quality information to non-equal access and equal access exchanges. AT&T has used information from the System to meet the FCC requirements.

The accompanying schedule is a summary of AT&T's Equipment Blockage and Failure Index (the "Index") for period January 1, 1989 through June 30, 1993 which was provided to the FCC.

EQUIPMENT BLOCKAGE AND FAILURE INDEX CALCULATION

The System samples calls from the majority of switches within the AT&T network and determines call dispositions for calls originating at such switch. A weighting factor is applied to each call selected based on the number of calls per hour for the particular switch. This data is then accumulated by disposition categories. These categories are summarized daily and monthly to calculate EB&F percentages. For purposes of calculating the Index, AT&T averages six months of EB&F percentages. The resulting semi-annual EB&F percentages for "All Factors" and "AT&T-only" are allocated between equal access and non-equal access trunks. The percentages for the period of January through June 1989 were used as the base period and assigned an index of 100. The indices for all subsequent periods have been presented by AT&T in proportion to this base period index.

1. Attest Report Criteria (Continued)

The base period was restated in 1992 to reflect adjustments made by AT&T due to errors discovered in the accumulation of the underlying data during the base period. These errors were discovered during the base period and corrected on a prospective basis. Thus, while the underlying EB&F percentages for periods after the base period were properly calculated, the resulting indices when compared to the base period were not correct.

The base period errors were detected during April 1989 and corrected for April, May and June of 1989. Data for January, February and March of 1989 was not recalculated due to the unavailability of correct data for these months. Thus, the base period data revised in 1992 is based on the April, May and June 1989 corrected data and an average of this data for January, February and March.

Accordingly, upon correction of the base period in 1992, each six month index, subsequent to the base period and through June 30, 1992, has been restated.

In addition to the base period adjustment, the percentages and related indices for the periods ending December 31, 1990 and June 30, 1991 were adjusted in 1992. These adjustments, which decreased the calculated percentages, resulted from erroneous call disposition classifications by the switches. Certain calls were originally treated as EB&F calls when they should have been classified as complete.

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September 20, 1993

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In conjunction with C&L's review of EB&F data and indices for the period from January 1989 to June 1993, you asked me to read M.A. Cleemput's memo "Computation of Confidence Intervals for Service Vu Call Evaluation Statistics Issue 1.0" dated July 1, 1993. Additionally you provided the document referred to in footnote two of that document by A.T. Brody "SES Data Integrity in the Environment" dated January 24, 1992. The latter document discusses the rationale for the proposed revised weighting approach for sample evaluations. These materials contain statistical formulae for evaluating sample results and provide a rationale for the proposed revised approach to data analysis for EB&F statistics accumulation. Since these documents do not address all the elements of a statistical sampling plan (e.g., sample selection), my comments are restricted to their content.

Based on my review of these materials, equations one to four in the "Computation" memo can be referenced to standard statistical literature (see W. Cochran Sampling Techniques 3rd Ed Wiley & Sons, 1977 pg. 57). The incorporation of weighing factors in equations 5 through 11 seems to be a valid extension of those formulae. The weighing factors developed for the application are explained in the "SES" memo and again in the "Computation" memo. The argument that the revised approach is more representative of system performance than the former approach is a compelling one.

Fundamental to the statistical validity of the approach described is the assumption that the extent of testing (sample size) is sufficient to permit the use of the normal distribution as an approximation of a more precise probability calculation. This is complicated by the expected low rate of "exceptions" in the population. While this consideration is clearly identified in the plan, the documents did not identify a target or estimated sample size at the sub-divided unit level, so it cannot be concluded that the $n\theta \geq 5$ and $n \geq 30$ will be met. However, even in the absence of specifically meeting this criteria, a sample

EXHIBIT B

result indicating a low exception rate population should pose little concern for AT&T in overseeing the performance statistics, even in the absence of rigorous statistical validity of the computed confidence limits. At the worst case, the computed confidence limits would be narrower than theory would support, however, the direct projection of the sample result would be the same.

It is noted in these studies that further data analyses may be undertaken to validate some assumptions used in developing the sampling approach. For example:

"Computation" memo	- Section 2.2 Classification Errors
	- Section 2.3 Traffic Counts
"SES" memo	- Section 4.1 Daily and Seasonal Patterns
	- Section 4.3 Weighting factor fluctuations

While helpful in refining the analysis, none of the assumptions appear to be problematical or so critical as to warrant delay in the implementation of the proposed approach.

Thank you for your cooperation in responding to my inquiries and questions. Please let me know how I can be of assistance to you going forward.

Sincerely,

Lynford E Graham

Lynford E. Graham, PhD, CPA
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LEG:ar

Enclosure

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Lynford E. Graham is a National Business Assurance Consulting partner in the New York office of Coopers & Lybrand. He is responsible for the Research Request unit of the Accounting and SEC Consulting Directorate, which supports the technical information needs of the practice and National office and maintains the Firm's private data base of research and consulting issues.

Previously his responsibilities included the research, development and implementation of new audit techniques. He had development responsibility for ExperTAX and Risk Advisor, state-of-the-art expert systems applications currently used in C&L's tax and audit practice. In the area of quantitative audit techniques, he represented the Firm on the AICPA's Statistical Sampling Subcommittee (SAS 39), the Materiality and Audit Risk Task Force (SAS 47) and chaired the Quantitative Methods Task Force investigating analytical procedures. He recently served as a member of the AICPA's Information Technology Executive Committee that oversees the newly created IT Division, and as editor of the AICPA newsletter InfoTech.

Dr. Graham has been responsible for developing policy, software and training in sampling techniques at Coopers & Lybrand and has conducted seminars and training programs in sampling for some of our largest clients. He has authored a variety of academic articles on statistical sampling subjects and published in the journal Auditing: A Journal of Practice and Theory. He has also consulted with a variety of governmental agencies on the development, implementation and interpretation of statistical sampling plans in conjunction with cost and reimbursement studies, student loan reviews and special engagement situations.

Dr. Graham has a diversified background as an auditor, management consultant, and university instructor. He is a member of a number of professional organizations, including the American Institute of CPAs, the American Accounting Association and the National Association of Certified Fraud Examiners. He holds an MBA in Industrial Management and a PhD in Business and Applied Economics from the Wharton School, University of Pennsylvania.

CERTIFICATE OF SERVICE

I, Michelle Sebren, hereby certify that a true copy of the foregoing Comments of American Telephone and Telegraph Company are sent by hand delivery to:

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Michelle Sebren

Dated: September 21, 1993